



CITY OF FALLS CHURCH

DATE: June 2, 2016

TO: Wyatt Shields, City Manager

CC: Mike Collins, PE, Director of Public Works
Stephanie Rogers, PE, Transportation Engineering Supervisor
James B. Snyder, Director of Planning and Development Services
Jeff Sikes, Transportation Planner

FROM: Kerri Oddenino, Planning Intern

THROUGH: Paul Stoddard, Principal Planner

SUBJECT: Staff Recommendations- Spring 2016 Bike Routes

Introduction & Request

City staff requests your review and approval of proposed bicycle facilities.

On July 13, 2015, the City Council adopted the City's [Bicycle Master Plan](#). That Plan identifies future bicycle routes throughout the City and specifies a public engagement process to be followed when implementing those routes. Following adoption of the Plan, Council authorized \$25,000 in Fiscal Year 2016 funds to advance Plan implementation. Staff proposes to use the funds to refresh/mark three routes in the City and to install associated wayfinding signs.

This memo describes recommended facilities and wayfinding signs and describes the public engagement process followed in developing these recommendations.

Identified Routes

With the budget available, staff expects to complete three segments of the City's future bicycle network. After reviewing the map of future routes and considering existing conditions, staff identified the following three routes for refresh/installation of pavement markings.

1. Park Ave
 - Refresh markings installed in 2014 as a pilot program funded by the Economic Development Authority (EDA)

2. Little Falls & Maple
 - Shift route to align with Bicycle Master Plan.
3. Cherry Street
 - Coordinate with Fairfax County and Arlington County to increase access to the East Falls Church Metro Station from the Hillwood neighborhood and other areas south of the station.

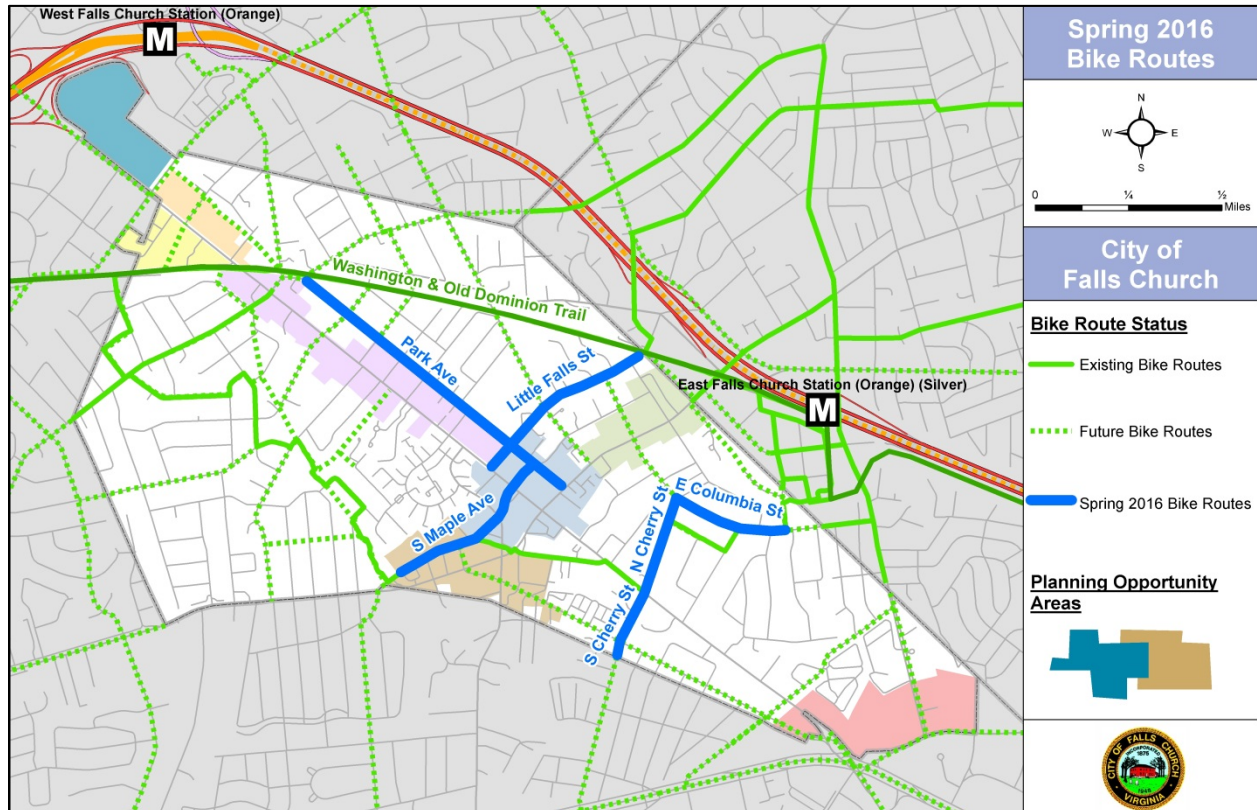


Figure 1: Bike Routes for Fiscal Year 2016.

Public Engagement

The Bicycle Master Plan outlines a process for implementation (page 19, attached for reference). First, City staff brainstorms marking options. Second, through a community workshop, the public reviews and provides feedback. Third, the City Manager reviews options and feedback and selects final markings.

Per the Bicycle Master Plan, staff considered alternative configurations for each street segment along designated bicycle routes. Factors impacting potential street configurations included street width and percentage of on-street parking utilization.

Options for bicycle infrastructure included:

- No change;
- Lane treatments, including sharrows and bike lanes;
- Intersection treatments, including bike boxes.

On May 7, 2016, City staff hosted a workshop to solicit feedback on options for implementing the proposed routes during the spring of 2016. The meeting was advertised through multiple channels, including the City website and other electronic means, the Falls Church News Press, and yard signs posted along the proposed routes.

Approximately 35 people attended the community workshop, including two members of City Council, one member of the Citizens Advisory Committee on Transportation (CACT), and two members of the Economic Development Authority (EDA). Feedback received during the community workshop was used by staff to help inform recommendations for the proposed wayfinding signs and pavement markings. Meeting notes and survey results are attached.

Recommended Facilities

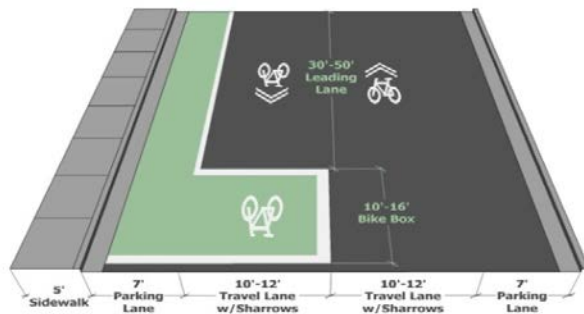
Based on staff's review of existing conditions and feedback provided during and after the public workshop, staff recommends installing the following facilities along the three identified routes.

Little Falls Street and Maple Avenue

Little Falls St between W&OD Trail and Great Falls St

Meeting participants generally support inclusion of a “bike box” at the intersection with Great Falls Street to help bicyclists negotiate the upslope and to increase safety at the intersection. Concerns were raised about the loss of up to three parallel parking spaces and loss of right turns on red. The parking spaces in question are used only some days of the week and unused parking is available on the same block. The loss of right turns on red will slow some automobile travel; however limiting right turns on red will also increase pedestrian safety. Pedestrian heavy areas often restrict turns on red because of the potential for crashes. Also note that right turns on red are already prohibited in the southbound direction.

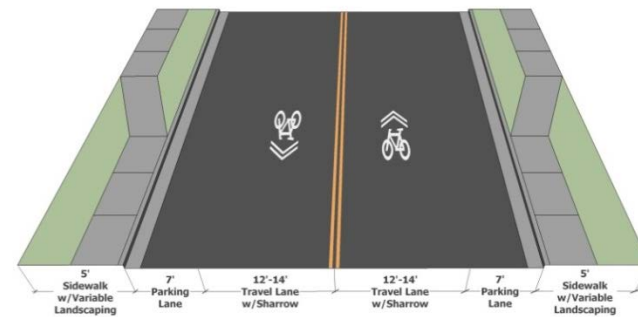
Option Name	Configuration
Bike Box at Great Falls	Sidewalk 5' Bike Box and leading lane leading uphill to Great Falls St Travel Lane with Sharrow 10-12' Travel Lane with Sharrow 10-12' Parking Lane 7'



Little Falls St between Great Falls St and W Broad St

Some meeting participants expressed interest in a bike box at the intersection with W Broad Street. Because of the roadway configuration, a bike box will be more difficult to accommodate. Additionally, the bike boxes proposed for Great Falls Street can serve as a pilot effort for consideration of future bike boxes.

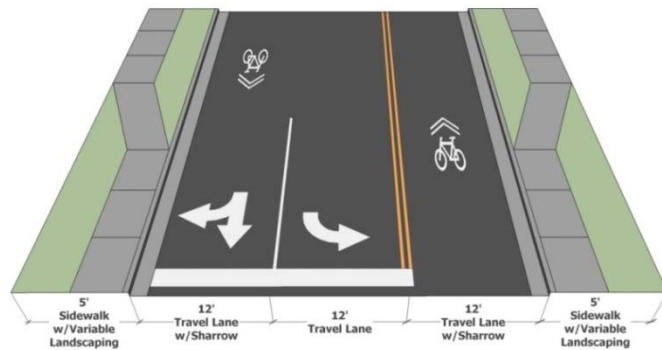
Option Name	Configuration
Sharrow	Sidewalk 5' Landscaping - partial Parking Lane 7' Travel Lane with Sharrow 12-14' Travel Lane with Sharrow 12-14' Parking Lane 7' Landscaping - partial Sidewalk 5'



N Maple Ave between Park and W Broad St

N Maple Avenue has little unused pavement space and the turn lanes at W Broad Street are regularly used. Travel speeds along this stretch are generally slow and can accommodate mixed travel lanes.

Option Name	Configuration
No Change, Refresh Existing Sharrows	Sidewalk 5' Landscaping-partial Travel Lane with Sharrow 12' Travel Lane 12' Travel Lane with Sharrow 12' Landscaping-partial Sidewalk 5'

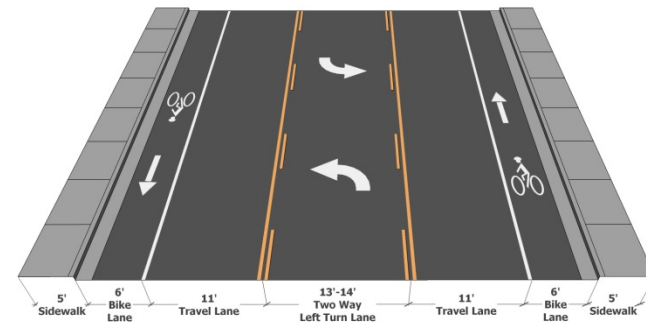


S Maple Ave between W Broad St and Annandale Rd

Several blocks of S Maple Avenue are wider than neighboring portions and therefore present more options for incorporating bicycle facilities.

Staff developed options to repurpose the outer lanes to provide bike lanes. Early measurements showed the street width to be approximately 48'. Later measurements showed a width of only 47'. That reduction in width coupled with comments received during and following the public workshop led staff to the following recommendations.

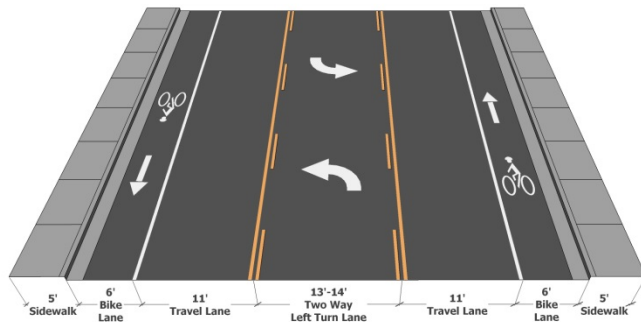
Option Name	Configuration
Bike Lanes with Center Turn Lane	Sidewalk 5' Bike Lane 6' Travel Lane 11' Two way left turn lane 13-14' (Dedicated left turn lane approaching intersections) Travel Lane 11' Bike Lane 6' Sidewalk 5'



S Maple Ave between Annandale Rd and Gibson St

The discussion in the above block is also relevant here. An additional issue at this intersection is providing sufficient access for auto and truck traffic accessing and serving the Harris Teeter grocery store under construction.

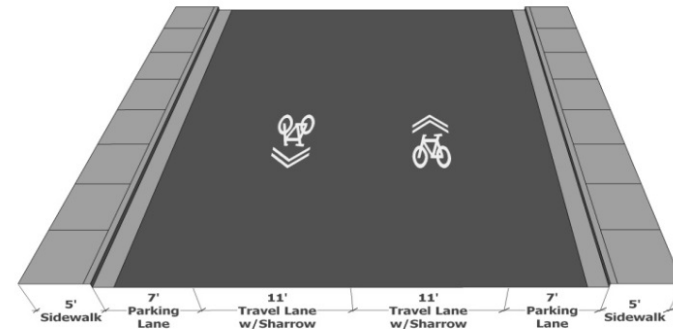
Option Name	Configuration
Bike Lanes with Center Turn Lane	Sidewalk 5' Bike Lane 6' Travel Lane 11' Two way left turn lane 13-14' (Dedicated left turn lane approaching intersections) Travel Lane 11' Bike Lane 6' Sidewalk 5'



S Maple Ave between Gibson St and Cavalier Trail

South of Gibson Avenue, parallel parking along S Maple Avenue is heavily utilized. The travel speeds are generally slow and can support mixed traffic.

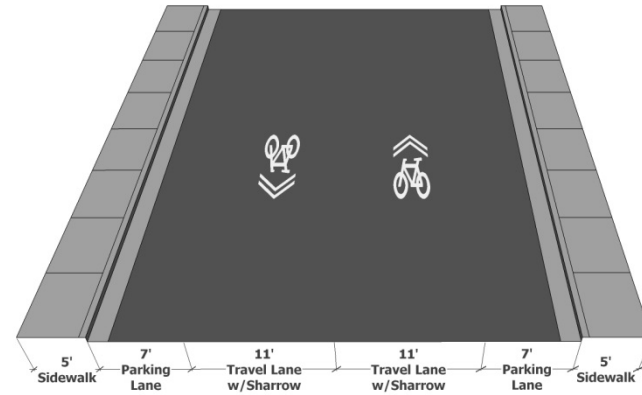
Option Name	Configuration
No Change, Refresh Existing Sharrows	Sidewalk 5' Parking Lane 7' Travel Lane with Sharrow 11' Travel Lane with Sharrow 11' Parking Lane 7' Sidewalk 5'



Park Ave

Park Avenue has limited right of way, which reduces the possible options. Staff recommends a refresh of existing sharrows on Park Ave.

Option Name	Configuration
No Change, Refresh Existing Sharrows	Sidewalk 5' Parking Lane 7' Travel Lane with Sharrow 11' Travel Lane with Sharrow 11' Parking Lane 7' Sidewalk 5'

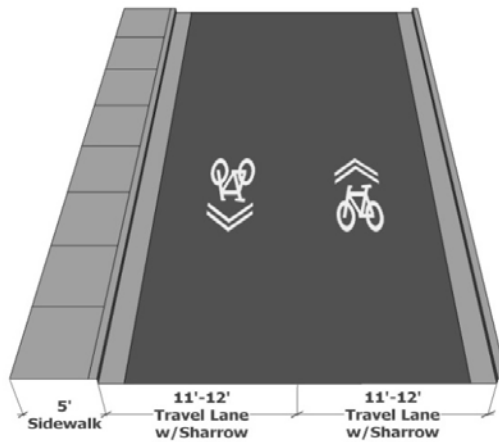


Cherry Street and East Columbia Street

Cherry Street

Cherry Street has limited right of way, and is just wide enough for two travel lanes. Conversation about this route was limited, though meeting participants generally supported sharrows.

Option Name	Configuration
Sharrow	Sidewalk 5' Travel Lane with Sharrow 11-12' Travel Lane with Sharrow 11-12'

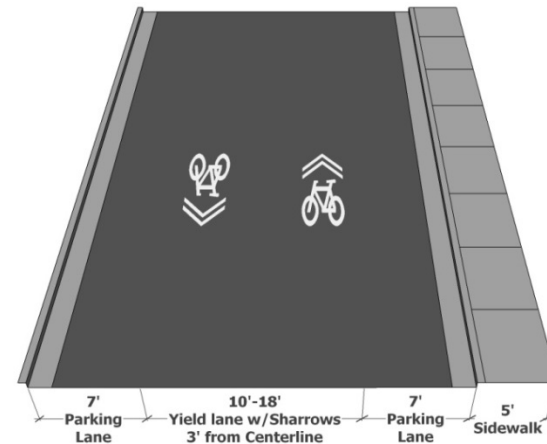


E Columbia St between N Van Buren St and N Cherry St

Columbia Street also has limited right of way. The street has lightly used parking lanes on both sides and a yield lane in the center.

More complicated solutions including climbing lanes and formalization of the yield lane configuration are possible, but may be appropriate for consideration a later time, as the community becomes more familiar with biking infrastructure.

Option Name	Configuration
Sharrow	Parking Lane 7' Yield Lane with Sharrows 3' in from center line 10-18' Parking Lane 7' Sidewalk 5'



Recommended Wayfinding

Destinations

Signs were selected to provide guidance along the two proposed new routes. Wayfinding systems utilize landmarks and other known places to help orient travelers. Major bike routes, business districts and neighborhoods were included, as were institutions, transit stations, other municipalities and parks. The following list of destinations includes known places along the proposed routes:

- Transportation Links
 - W&OD Trail
 - East Falls Church Metro
- Economic Links
 - Restaurants/Shops
 - Bike Shops
- City Landmarks
 - City Hall Campus
 - Tinner Hill
 - Public Library
 - Cherry Hill Park
 - Madison Park
 - Donald Frady Park
- Places
 - Annandale
 - Eden Center

Priority Order

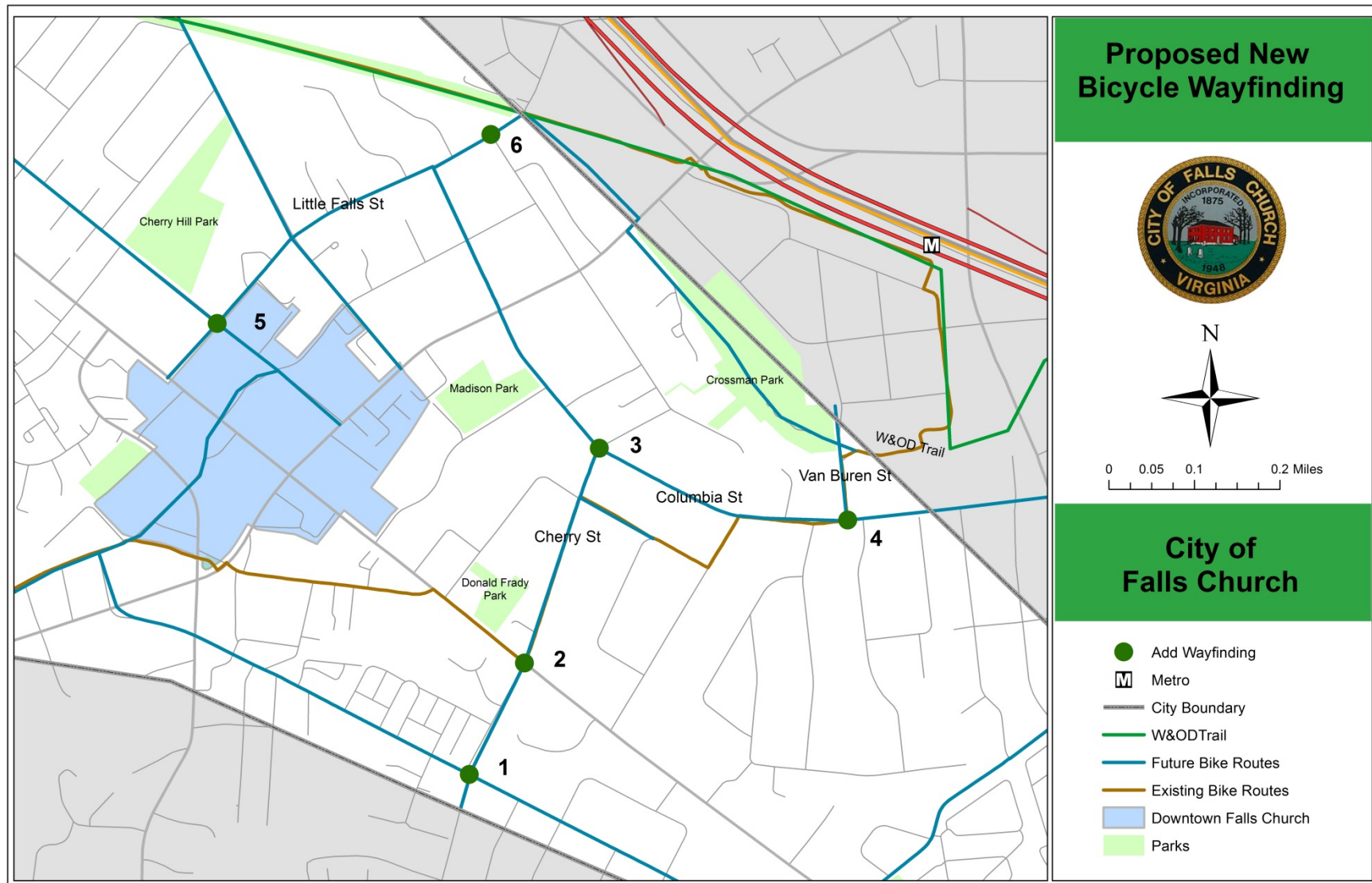
Best practices limit wayfinding signs to a maximum of three destinations per sign post. In limiting signs to a maximum of three locations, the following priorities were used:

- Primary: Major bike routes, business districts, neighborhoods
- Secondary: Institutions, transit stations, other municipalities
- Tertiary Destinations: Parks

Sign Locations and Destinations

The following maps and charts show signs to be added and removed in conjunction with the Spring 2016 routes. Note that the shifting of the route along N Maple Ave/Little Falls St motivates the removal of some existing signs.

Locations of new bicycle wayfinding signage

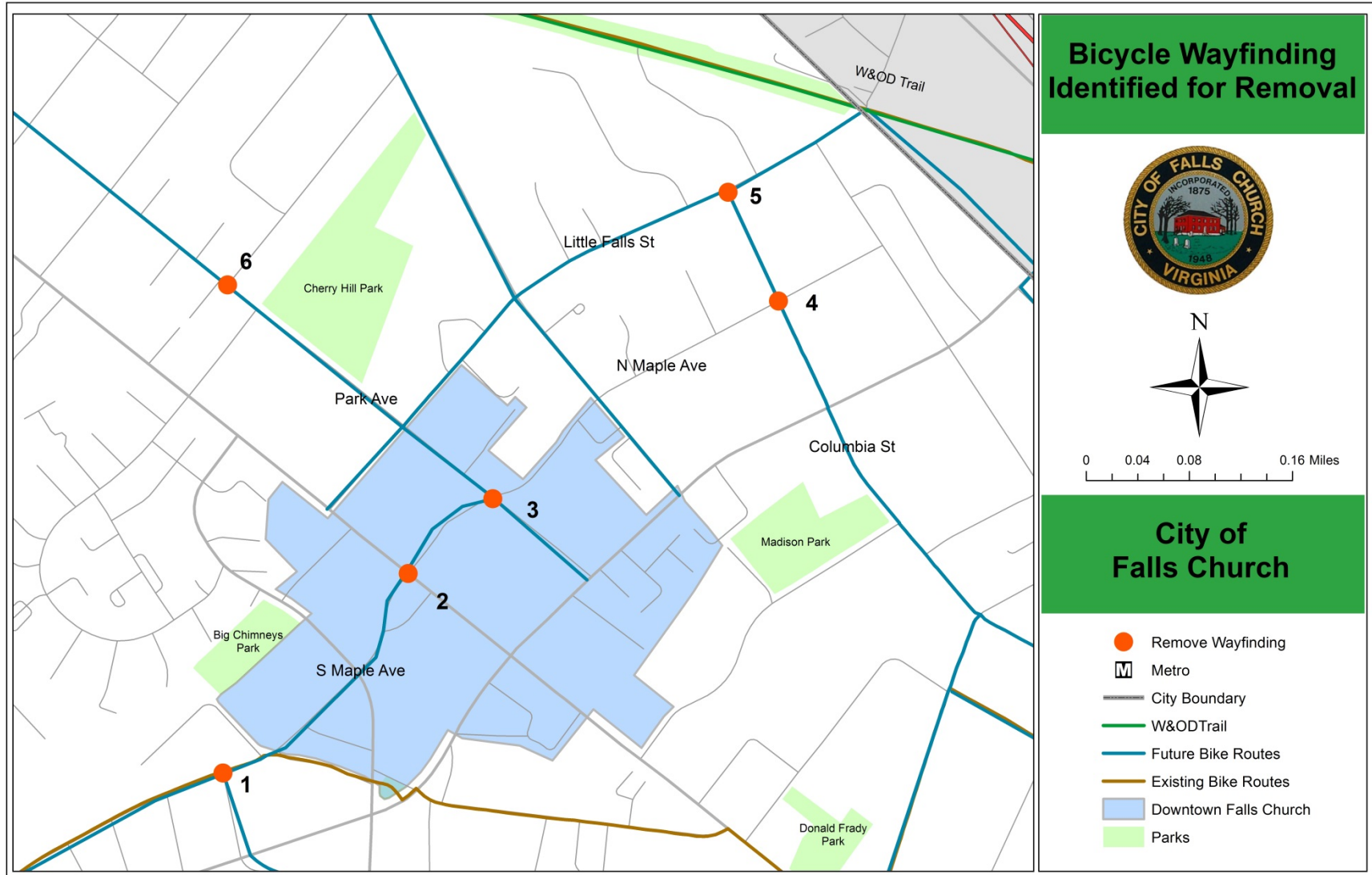


New Sign Destinations

Location	Direction	Destination 1	Destination 2	Destination 3
	Cherry St, E Columbia St, N Van Buren St			
#1 S Cherry St & Hillwood Ave	Northbound Approach	Tinner Hill <i>Left 0.6</i>	W&OD Trail <i>Forward 0.8</i>	East Falls Church Metro <i>Forward 1.2</i>
	Southbound Approach	Annandale <i>Forward 0.1</i>	Tinner Hill <i>Right 0.6</i>	Eden Center <i>Left 0.8</i>
#2 Cherry St & E Broad St	Northbound Approach	Restaurants/Shops <i>Left 0.3</i>	W&OD Trail <i>Forward 0.7</i>	East Falls Church Metro <i>Forward 1.0</i>
	Southbound Approach	Donald Frady Park <i>Right 0.1</i>	Annandale <i>Forward 0.2</i>	Restaurants/Shops <i>Right 0.3</i>
#3 N Cherry St & E Columbia St	Eastbound Approach	W&OD Trail <i>Forward 0.3</i>	East Falls Church Metro <i>Forward 0.8</i>	
	Northbound Approach	W&OD Trail <i>Right 0.3</i>	East Falls Church Metro <i>Right 0.8</i>	
	Westbound Approach	Madison Park <i>Forward 0.1</i>	Annandale <i>Left 0.5</i>	Restaurants/Shops <i>Forward 0.3</i>
#4 E Columbia St & N Van Buren St	Eastbound Approach	W&OD Trail <i>Left 0.1</i>	East Falls Church Metro <i>Left 0.5</i>	
	Southbound Approach	Madison Park <i>Right 0.4</i>	Annandale <i>Right 0.8</i>	Restaurants/Shops <i>Right 0.9</i>
	Little Falls St			
#5 Little Falls St & Park Ave	Northbound Approach	City Hall Campus <i>Forward 0.1</i>	Cherry Hill Park <i>Left 0.1</i>	W&OD Trail <i>Forward 0.5</i>
	Southbound Approach	Cherry Hill Park <i>Right 0.1</i>	Public Library <i>Right 0.1</i>	Restaurants/Shops <i>Forward 0.1</i>
#6 Little Falls St & W Jefferson St	Southbound Approach	Bike Shop <i>Left 0.1</i>		

Locations of Signs to be Removed

Because of the shift from N Maple Avenue to Little Falls Street, several signs will need to be removed.



Sign Destinations to be Removed

Location	Direction	Destination 1	Destination 2	Destination 3
	S Maple Ave			
#1 S Maple Ave & Gibson St	Northbound	W&OD Trail <i>Forward 0.8</i>		
	N Maple Ave and Park Ave			
#2 Maple Ave & Broad St	Northbound	W&OD Trail <i>Forward 0.5</i>		
	Northbound	W&OD Trail <i>Forward 0.5</i>		
#3 N Maple Ave & Park Ave	Southbound	State Theatre <i>Left 0.1</i>	City Hall Campus <i>Right 0.1</i>	Falls Church Art Space <i>Forward 0.4</i>
	Eastbound	W&OD Trail <i>Left 0.5</i>		
	Westbound	W&OD Trail <i>Right 0.5</i>		
	N Maple Ave and W Columbia St			
#4 N Maple Ave & W Columbia St	Northbound	W&OD Trail <i>Left 0.2</i>		
	Eastbound	Downtown Falls Church <i>Right 0.4</i>		
	Little Falls St			
#5 Little Falls St & W Columbia St	Southbound	Downtown Falls Church <i>Left 0.5</i>		
	Park Ave			
#6 Park Ave & N Virginia Ave	Eastbound	W&OD Trail <i>Forward 0.7</i>		

Attachments

1. Bike plan public engagement process
2. Public workshop notes
3. Survey results
4. Emailed public comments

Appendix, Existing Conditions- Parking Utilization and Street Widths

Little Falls Street & Maple Avenue

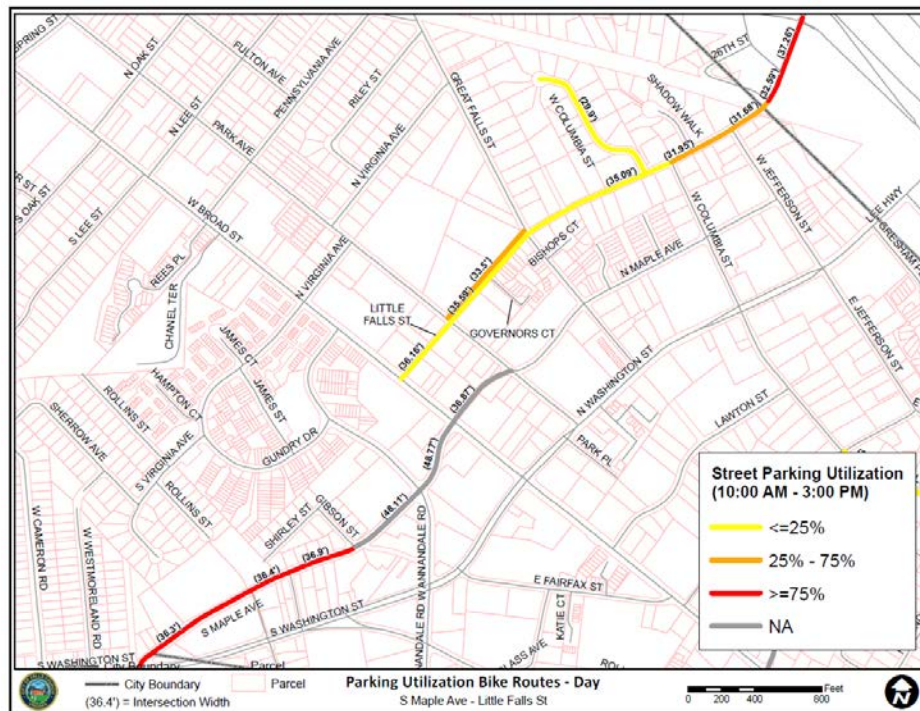


Figure 2: Percent Street Parking Utilization-Day. South Maple Avenue to Little Falls Street.

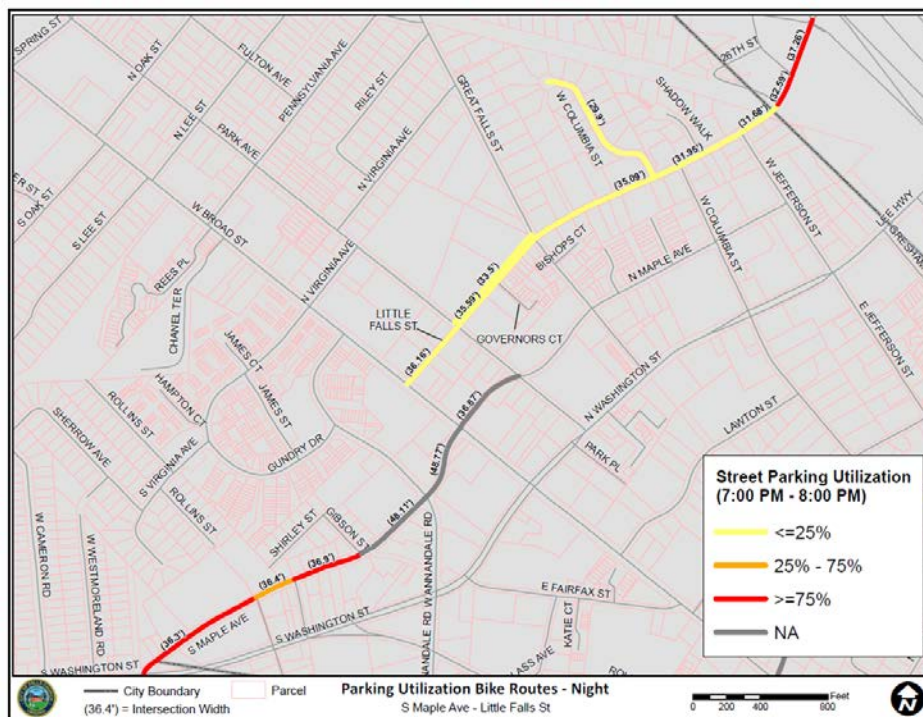


Figure 3: Percent Street Parking Utilization-Night. South Maple Avenue to Little Falls Street.

Cherry Street, E Columbia Street, and Van Buren Street

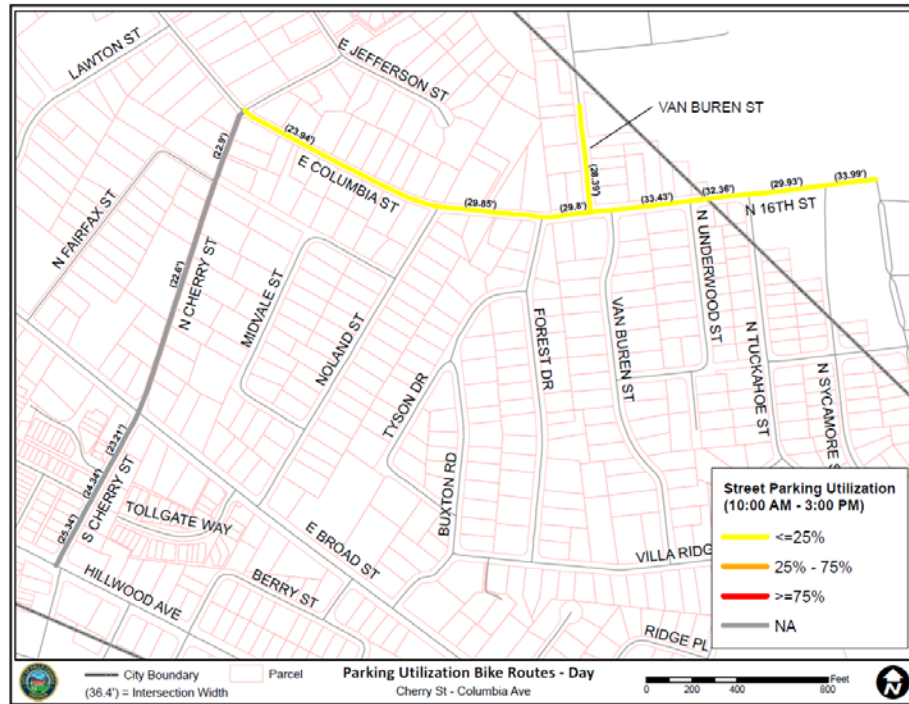


Figure 4: Percent Street Parking Utilization-Day. Cherry Street to East Columbia Street.

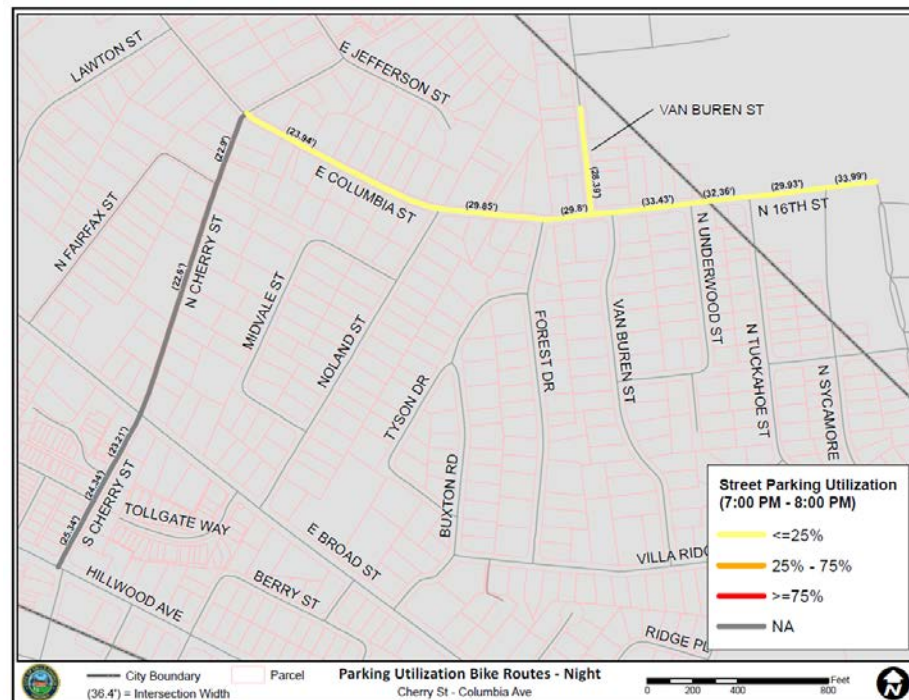


Figure 5: Percent Street Parking Utilization-Night. Cherry Street to East Columbia Street.